



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

646.3014
Job Sheet 203832



Part No: 646.3014

Job Qty: 24 pcs

Part Name: Blade



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/28/19

Job Tracking No:

Due Date: 1/12/20

Created By: Jennifer Renwick

Type: Stock

Description:

Note: DWG REV N/C SHEET 11 IPP REV:A NEW ISSUE 12/11/09 JFS VERIFY BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	24 pcs		1/12/20	0.00	1.28	Bandsaw - 1		ALA
110	HAAS 4 Axis - B4B	24 pcs		1/12/20	1.00	19.34	HAAS - 1 - B4B		J.C.W.
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		
							HAAS - 4 - B4B		
120	QC 2	24 pcs		1/12/20	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		J.C.W. 20-01-17
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		

20-01-15



Container No: S247634



Part: 646.3014

Job No: 203832

Serial No/Batch: S247634

Revision: Rev N/C

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 01/15/20

Plex 11/28/19 8:23 AM Dart.Renwick.Jennifer

					QC 2 - 63	
					QC 2 - 8	
					QC 2 - 66	
					QC 2 - 64	
					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
					QC 8 - 12	
					QC 8 - 14	mk 2010/1/18
					QC 8 - 17	
					QC 8 - 20	
130 QC 8	24 pcs	1/12/20	0.00	0.00	QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
					QC 8 - 76	
					QC 8 - 61	
140 Outsource - 1 - Heat Treat	24 pcs	1/12/20			MEI001-VC	10
150 Packaging 2-1 - Receive - B4B	24 pcs	1/12/20	0.00	0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	JAN 3 0 2020
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 -	

					B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
Packaging 2 - 36 - B4B						
155 QC 6	24 pcs	1/12/20	0.00	0.00	QC 6 - 9	DAS
					QC 6 - 68	FEB 04 202068
					QC 6 - 61	9-89
					QC 6 - 40	
					QC 6 - 81	DAS
160 Spray Paint - 2 - B4B	24 pcs	1/12/20	0.00	0.67	Spray Paint - 1 - B4B	41 FEB 05 2020
					Spray Paint - 2 - B4B	3-89
					Spray Paint - 3 - B4B	
					Spray Paint - 4 - B4B	
170 QC 14	24 pcs	1/12/20	0.00	0.00	QC 14 - 15	
					QC 14 - 2	
					QC 14 - 34	
					QC 14 - 41	
					QC 14 - 51	
					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	
					QC 14 - 68	
					QC 14 - 40	
					QC 14 - 19	
					QC 14 - 43	
					QC 14 - 24	
					Plex 11/28/19 8:23 AM Dart.Renwick.Jennifer	

				QC 14 - 61		FEB 11 2020	
				QC 14 - 81			
180	Packaging 3-1 - Stock - B4B	24 pcs	1/12/20	0.00	0.00	Packaging 3 - 1 - B4B	
						Packaging 3 - 2 - B4B	
						Packaging 3 - 3 - B4B	
						Packaging 3 - 4 - B4B	CCK101
						Packaging 3 - 5 - B4B	DAS 74 9-89 FEB 12 2020
						Packaging 3 - 6 - B4B	
						Packaging 3 - 7 - B4B	
						Packaging 3 - 8 - B4B	
						Packaging 3 - 9 - B4B	
						Packaging 3 - 10 - B4B	
						Packaging 3 - 11 - B4B	
						Packaging 3 - 12 - B4B	
						Packaging 3 - 13 - B4B	
						Packaging 3 - 14 - B4B	
						Packaging 3 - 15 - B4B	
						Packaging 3 - 16 - B4B	
						Packaging 3 - 17 - B4B	
						Packaging 3 - 18 - B4B	
						Packaging 3 - 19 - B4B	
						Packaging 3 - 20 - B4B	
						Packaging 3 - 21 - B4B	
						Packaging 3 - 22 - B4B	
						Packaging 3 - 23 - B4B	
						Packaging 3 - 24 - B4B	
						Packaging 3 - 25 - B4B	
						Packaging 3 - 26 - B4B	
						Packaging 3 - 27 - B4B	
						Packaging 3 - 28 - B4B	
						Packaging 3 - 29 - B4B	
						Packaging 3 - 30 - B4B	
						Packaging 3 - 31 - B4B	
						Packaging 3 - 32 - B4B	
						Packaging 3 - 33 - B4B	
						Packaging 3 - 34 - B4B	
						Packaging 3 - 35 - B4B	
						Packaging 3 - 36 -	
						Plex 11/28/19 8:23 AM Dart.Renwick.Jennife	

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190 QC 21 - SA	24 pcs	1/12/20	0.00 0.00	B4B	DAS
				QC 21 - SA - 21	21
				QC 21 - SA - 70	8-00
				QC 21 - SA - 53	
Part Op 100 - Cut Blank at 2.670"					FEB 12 2020
Descriptions: 110 - HAAS CNC Vertical Machine) 1-Machine per folio FB150					
120 - (QC2- Inspect parts off machine FAI/FAIB)					
130 - (QC8- Inspect parts - second check)					
140 - ISSUE P/O: <u>45240</u> FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS As Per Dwg 646.3000					
PART ARE MADE FROM AISI A2 TOOL STEEL					
150 - (Receive & Inspect for Damage & Mat'l Certs)					
155 - QC6- All purchased or subcontracted products					
160 - (Spray Paint / NDT Room) PRIME AS PER DWG, SEE NOTE #4 <u>5236137</u>					
170 - (QC14- Inspect Spray Paint)					
180 - (Identify as per dwg & Stock Location: _____) ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***					
190 - (QC21- Final Inspection - Work Order Release)					

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MSTEEL-A2-B0.500X1.250	AISI A2 Tool Steel Bar, 0.500 X 1.250	5.3520 ft (.223 ea)	100-Bandsaw - 1	<u>S242.150 13X</u> <u>S132658 11X</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	MSTEEL-A2-B0.500X1.250	5	77	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Blade	0.375inches $\pm$ 0.010	0.385 0.365		<u>375</u>
2	Blade	0.940inches $\pm$ 0.030	0.970 0.910		<u>939</u>
3	Blade	0.524inches $\pm$ 0.010	0.534 0.514		<u>525</u>
4	Blade	0.229inches $\pm$ 0.002	0.231 0.227		<u>229</u>
5	Blade	1.313inches $\pm$ 0.002	1.315 1.311		<u>1.313</u>
6	Blade	2.540inches $\pm$ 0.030	2.570 2.510		<u>2.533</u>
7	Blade	2.395inches $\pm$ 0.010	2.405 2.385		<u>2.395</u>
8	Blade	2.128inches $\pm$ 0.010	2.138 2.118		<u>2.128</u>
9	Blade	0.177inches + 0.005 - 0.001	0.182 0.176	diameter	<u>.178</u>
10	Blade	0.524inches $\pm$ 0.010	0.534 0.514		<u>.524</u>
11	Blade	0.569inches $\pm$ 0.002	0.571 0.567		<u>.571</u>
12	Blade	66.500Degrees $\pm$ 0.500	67.000 66.000	Angle	<u>66.5</u>
13	Blade	60.000Degrees $\pm$ 0.500	60.500 59.500	Angle	<u>60</u>

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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB045640



Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

Attention: Bejenaru, Livia

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB045640

PO Date: 1/21/20

Due Date: 2/11/20

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
2020-01-22

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	203824	646.3013	646.3000 Rev N/C	Blade : Various STC's ISSUE P/O: FINISH: HEAT TREAT TO 58- 62 RC ROCKWELL HARDNESS As Per Dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed X30	-	2/11/20	30 pcs	0 pcs	30 pcs	\$3.5638/pcs	\$106.91
											JAN 3 0 2020	
2	205075	646.3015	646.3000 Rev NC	Blade : Various STC's FINISH: HEAT TREAT TO 58- 62 RC ROCKWELL HARDNESS As per dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL DETAIL OF C OF C REQUIRED	Firmed X30	-	2/11/20	30 pcs	0 pcs	30 pcs	\$3.5638/pcs	\$106.91
											JAN 3 0 2020	
	205090				Firmed	-	2/12/20	10 pcs	0 pcs	10 pcs	\$3.5638/pcs	\$35.64
											JAN 3 0 2020	
								Sub Total:	40	0	40	\$142.55

Plex 1/22/20 10:42 AM Dart.Guerin.Kimberley



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB045640



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	203832	646.3014	646.3000 Rev N/C	Blade : Various STC's ISSUE P/O: FINISH: HEAT TREAT TO 58- 62 RC ROCKWELL HARDNESS As Per Dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed X24	-	2/11/20	24 pcs	0 pcs	24 pcs	\$3.5638/pcs	\$85.53

JAN 30 2020

Grand Total: \$335.00

Order Notes

Procurement Quality Clauses:
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Signature

Plex 1/22/20 10:42 AM Dart.Guerin.Kimberley

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
342327	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
HB045640	N/A	A2		
<u>SPÉCIFICATIONS DU PROCÉDÉ</u> processing specifications				
VAC HARDEN				
HARDEN AND TEMPER				
EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results	
HARDNESS	58 - 62 HRC	5 (907)	61 - 62 HRC	68 9-89
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
94	31	646.3000 (30) 646.3013 JOB 203824 DWG: 646.3000 REV N/C (30) 646.3015 JOB 205075 DWG: 646.3000 REV N/C (24) 646.3014 JOB 203832 DWG: 646.3000 REV N/C (10) 646.3015 JOB 205090 DWG: 646.3000 REV N/C 1 BC = 5 BC		

COMMENTAIRES / comments

VAC HARDEN 1800°F - 1:00 HRE
DOUBLE TEMPER 400°F - 2:00 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

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BON DE TRAVAIL order	CHARGEMENT load
342327	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux réglementations relatives au contrôle des exportations ou ayant un caractère privé. S'ils ne vous sont pas destinés, nous vous signalons qu'il est strictement interdit de les divulguer, de les reproduire ou d'en utiliser de quelque manière que ce soit le contenu. Toute exportation ou réexportation non autorisée est interdite.

APPROUVÉ par / Approved by:

DATE: 2020-01-28

Lucie Desmarais
QA Technician



METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
342327	1	143160

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT / Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



LIVRÉ À / Shipped To

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
HB045640		A2	2020/1/21	client

QUANTITÉ Quantity	No. PIÈCE / Part No.	NOM DE LA PIÈCE / Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
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94	646.3000			31,
	(30)	646.3000	JOB 203824 ✓	
	(30)	646.3000	JOB 205075 ✓	
	(24)	646.3000	JOB 203832 ✓	
	(10)	646.3000	JOB 205090	

1 BC = 5 BC

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
	1	1bc=5bc

EXPÉDIÉ PAR: Shipped by:	
------------------------------------	--

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 94
POIDS EXPÉDIÉ / Weight Shipped : 31,00
QUANTITÉ RESTANTE / Quantity Remaining : 0
POIDS RESTANT / Weight Remaining : 0,00

RECEIVED

JAN 29 2020

DART AEROSPACE LTD.

QUANTITÉ EXPÉDIÉE / Quantity Shipped: 94

POIDS EXPÉDIÉ / Weight Shipped : 31,00

Signature:

Date:

EXPÉDIÉ LE / Shipped On : 2020/01/27